Connie Campbell* (campbcm@millsaps.edu), James Sandefur (sandefur@georgetown.edu) and Kay Somers (somersk@moravian.edu). Using Video Case-Studies to Develop Proof Writing Skills. Preliminary report.

The presenters have developed a set of video case studies for use in the teaching of an introductory proofs course. The videos show students who have recently completed an "Introduction to Proof" course as they work in pairs to prove a statement that is new to them. These videos, when used in the classroom together with a well guided discussion, allow students to see peers address obstacles and articulate reasoning as they move toward the proof of a statement (or away from one). This interactive experience allows the viewer a chance to think about how the students in the video are approaching a problem and challenges them to articulate why a particular approach may or may not be working. Engaging in such critique facilitates understanding of the problem-solving process and helps students develop their own proof-writing and reflective-thinking skills.

The presenters will show several clips from their video library and demonstrate how one might use these videos in the classroom to enhance student learning. In addition, they will discuss assessment results related to the use of these videos in the classroom. (Received August 30, 2013)